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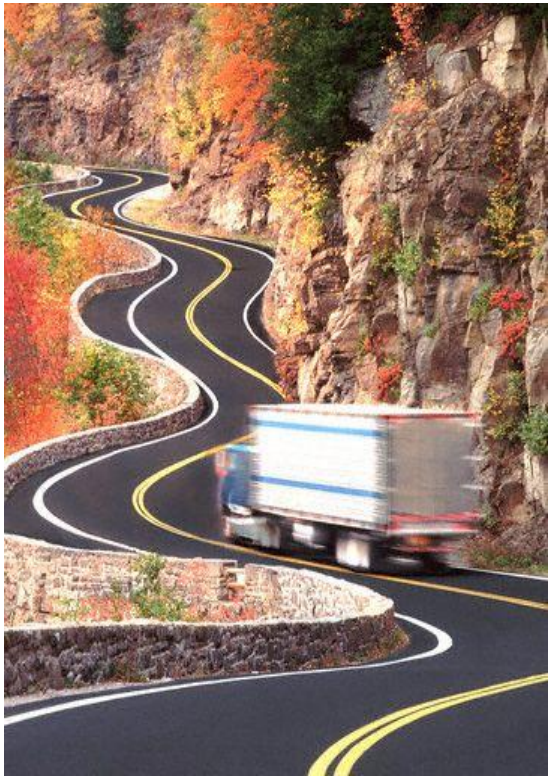

Trends and Topics in Fleet Management

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AMR Research

OPTIMIZED FLEET

Driving Innovation in Asset Monitoring

IBM

WebTech WIRELESS

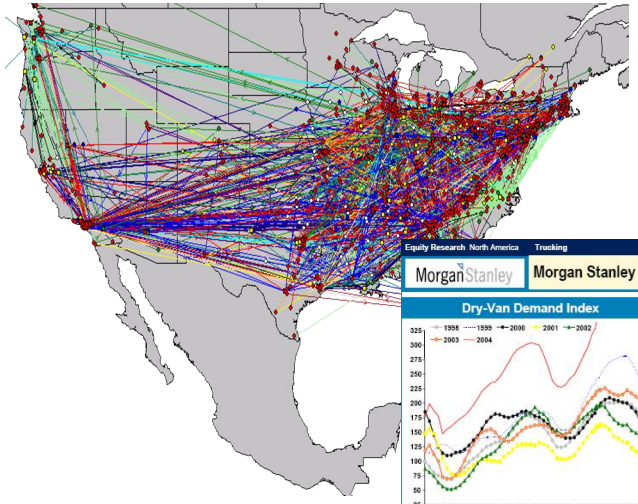
About: AMR Research

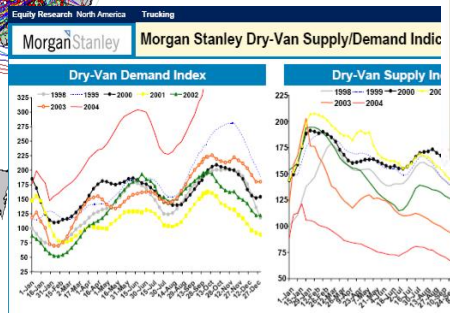
- **Leading Supply Chain Research and Advisory Firm**
- **Subscriber service for *actionable advise* for business and technical executives on using technology and applications to implement supply chain improvement strategies**
- **HQ: Boston, MA**
  San Francisco, CA
  London, UK
- **Serving:**
  Industry Companies,
  Software Vendors,
  Consulting Firms,
  Financial Community

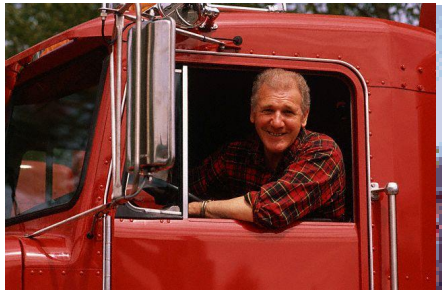
Scope: Types of fleets …

- **For-Hire Transportation (Trucking)**
  - TL, LTL, Drayage, P&D, etc…
- **Manufacturer and Retailer Private Fleets**
- **Direct Consumer Delivery**
  - Electronics
  - Appliances
  - Furniture
- **Service**
  - Residential
  - Industrial

Current Industry Drivers



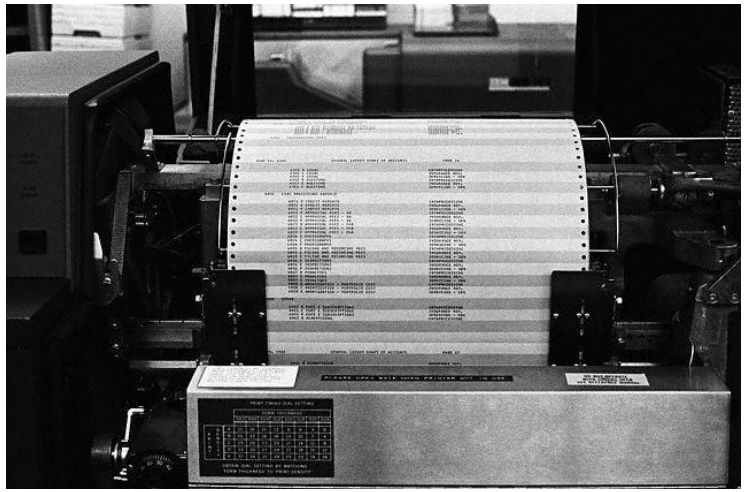




Customers' Supply Chain Pressures …

- Keeping transportation costs contained in difficult fuel market
- Obtaining capacity in supply-strained market
- Growth of DSD / VMI / SMI programs with major retailers / mfgr's
- Focus on customer service options with reliable, tighter deliveries
- Tight inventories driving more frequent, smaller shipments
- Increase logistics process productivity
- Inventory and delivery control through information-based transparency
- Service: Integrating the routing of skilled technicians with parts and narrow time windows

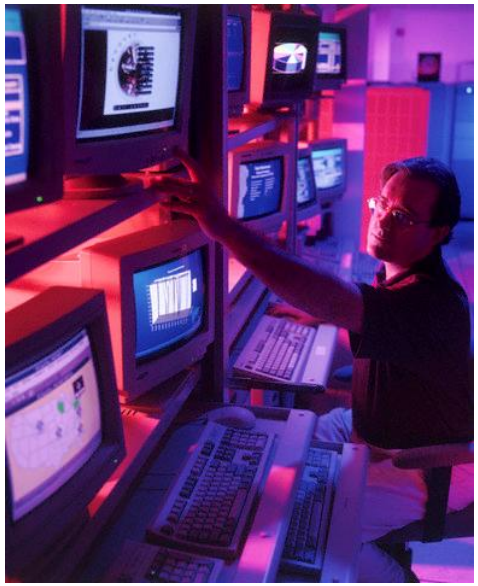
Optimal Fleet Management: Current technology won't cut it…



Technology foundation

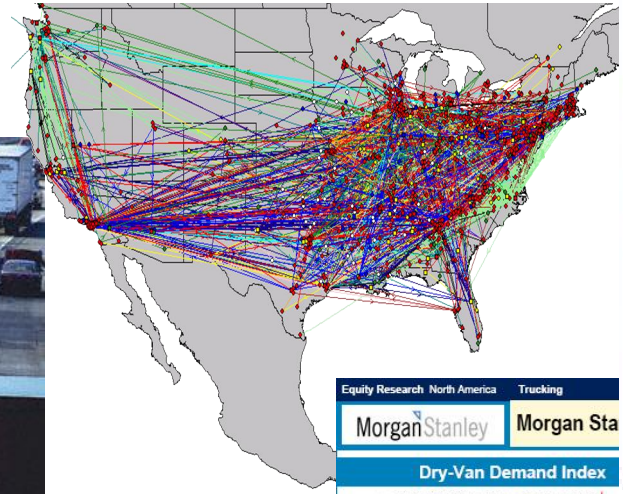
- Real-time locationing of assets/drivers
- Real-time 2-way connectivity
- Real-time reactive dispatch and routing
- Dedicated information system
- Paperless focus across processes
- Event-driven automatic electronic messaging support
- Profitable quotation and pricing mechanisms
- Direct integration with financials

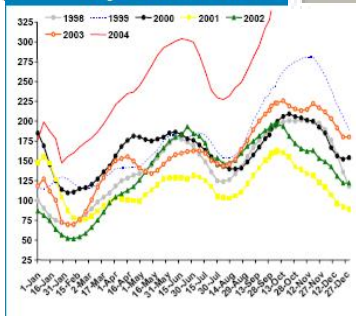
GPS & GSM/GPRS

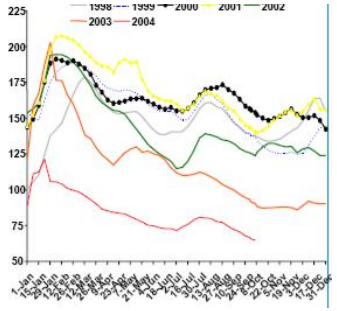


Lowering costs through optimization

- Optimized routes
- Optimizing fuel prices
- Optimize yield



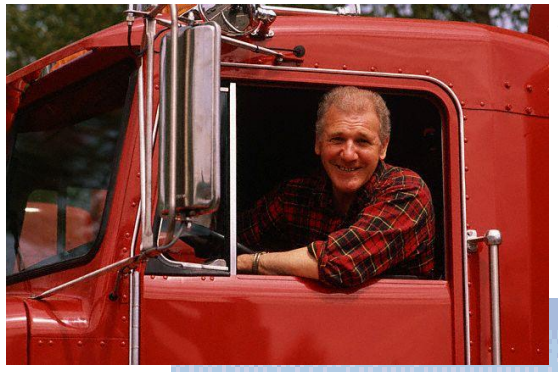


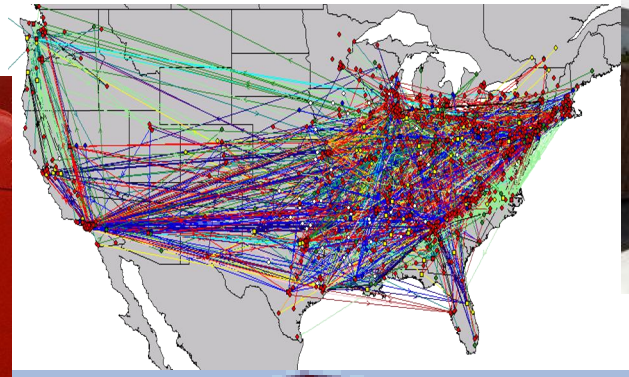


Driver Retention: Using optimization to improve driver experience

- **Routing that considers employee's quality of life (days off, home time, family, etc…)**

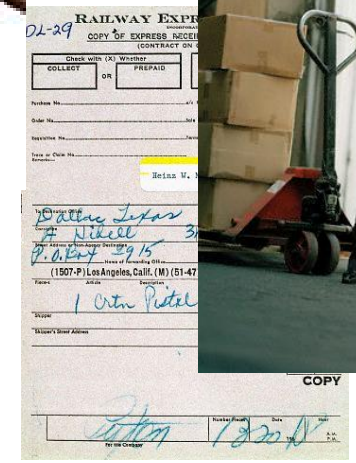
- **Routing that considers the driver experience**



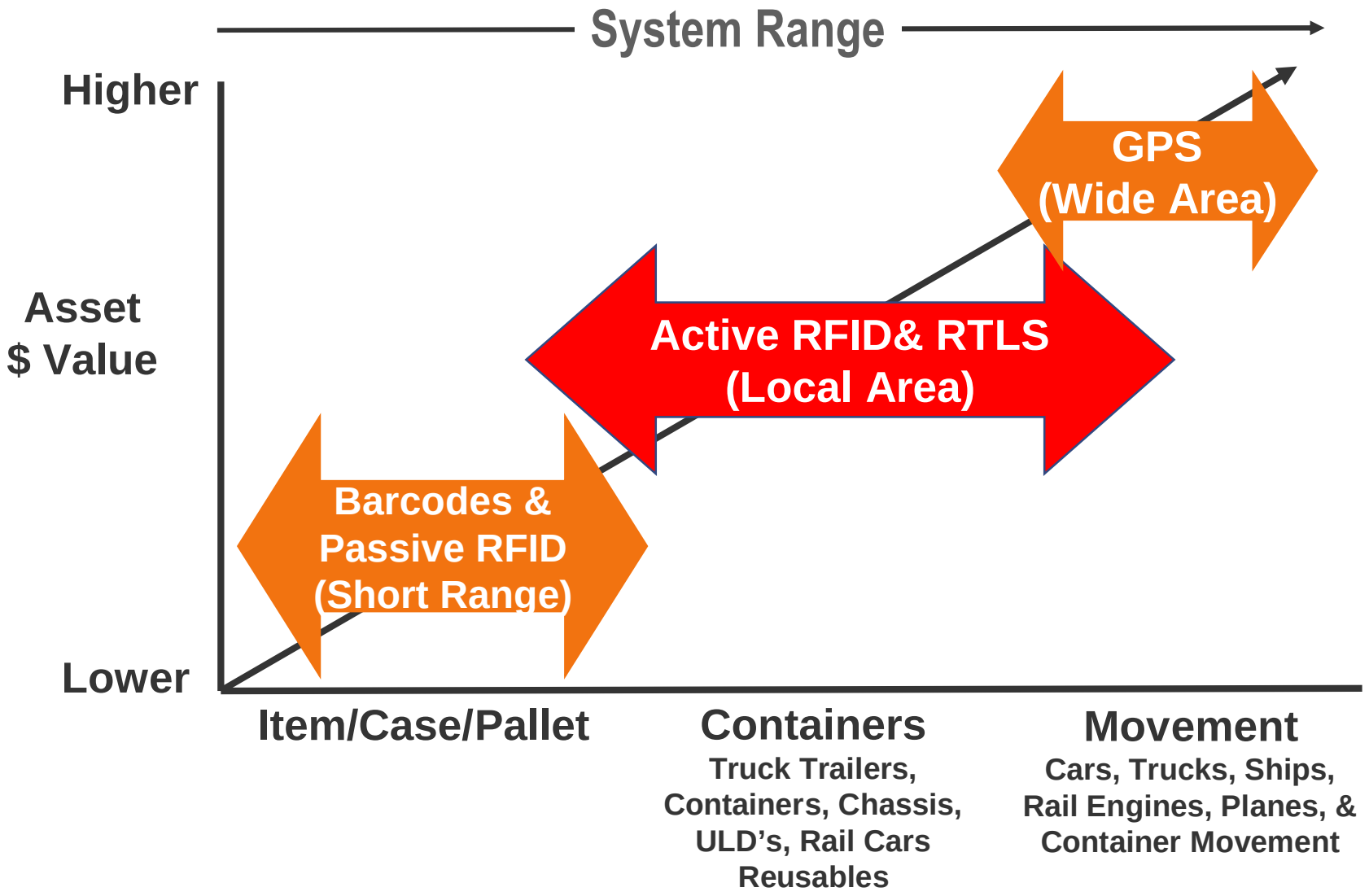


Increasing productivity and process speed

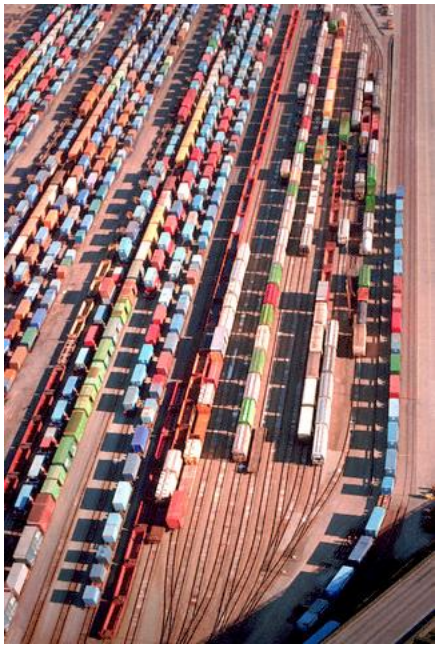
- Use of wireless devices
- Digital signature
- Paperless invoicing
- Barcode scanning

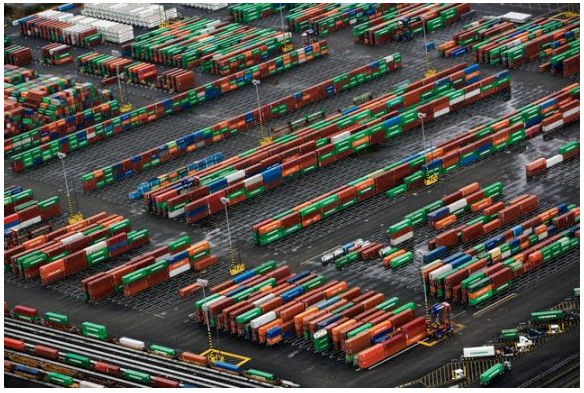


Auto-ID and Real-time Locator Systems



Asset Tracking: Reusable Containers





- Costly
- Difficult to track and manage
- Non-standard within the particular industry
- Not optimized in the supply chain
- In-house because we're expected to keep them in-house
- Increased pressure to use returnable, reusable packaging

Many companies report being unable to account for as much as 10% of their container fleet annually.

Asset Tracking: Monitoring Supply Chain Flow

Asset Tracking: Security

Last Mile Delivery

- **Last Mile Delivery systems provide integrated and automated capabilities to manage:**
  - **Customer Service** –
    - Order / work-order management
    - Capturing key delivery characteristics
    - Dynamic service change support
    - Service failure investigation / resolution
  - **Route Planning and Dispatch** –
    - Optimized territory planning
    - Dynamic planning: determining most productive use of assets
    - Real-time dispatch management
  - **Real-time visibility to delivery operations** –
    - Total transparency to routes, vehicles, and events at all times
    - Two-way communication between dispatch and vehicle
  - **Continuous Improvement** –
    - Reporting on key analytics for process improvement
    - Segmented financial analysis – cost to serve, etc…

Last Mile Delivery Automated: Example Benefits

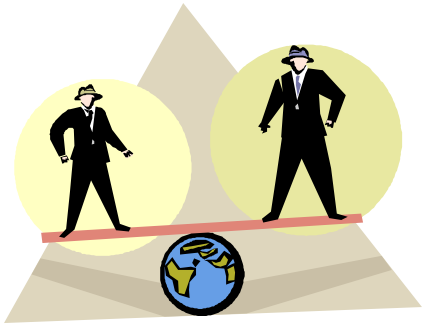
- **Wholesale distributors**
  - 12% driver productivity increase
  - 10% reduction in overtime
  - route fixed costs reduced 35%
  - delivery cost as a percentage of revenue reduced 24%

- **Retail Furniture – Home delivery service**
  - on time delivery percentage from 85% to 97%
  - reduced customer no-shows to below 2%

- **Food manufacturer**
  - 10% driver productivity increase
  - 8% increase in fleet capacity

Software Trends: “On-demand”

Organizations can scale the availability, usage, service levels, and costs up or down as demand requires without regard to the underlying infrastructure necessary to run the applications.



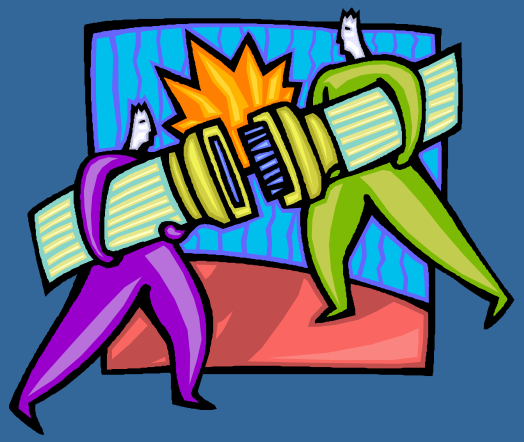
- Hosted Internet-access offering
- Both IT resources and their management are included in the fee
- Pay only for functions used and the time that they are used
- Requires no client-owned/managed infrastructure except for Internet access and integration services
- Fewer people to manage IT resources internally

Software becomes utility …. automation on-demand

On-demand: Key Business Drivers

- Expense instead of large capital expenditure
- Software stays current – buyers consistently take advantage of upgrades (enhancements)
- More rapid implementation
- Less requirements of internal IT resources
- Internet model is natural for managing distributed multi-party networks supporting remote and distributed staff members, partners, and customers
- Some buyers seek on-demand as low-risk interim solution until ERP “completes” functionality

Shifting Priorities Opens Opportunities for New Solutions



- Changing business structure (networks) places different demands on infrastructures and applications
- Growing exposure to and confidence in web-based applications changes expectations among LOB and IT

Transportation On-Demand: a Natural

- System is “always on” speeding setup and configuration
- On-boarding distributes cost (time and money) of connectivity of parties (carriers, suppliers, 3PLs)
- Entire supply chain network can be online sharing info in real-time
- Must be a good electronic citizen to be valued by the network
- Provides centralized repository for accurate and timely data from all parties

Value in the Network

- Addresses
- Shippers
- Receivers
- Carriers
- 3rd Parties
- Suppliers

Recap of benefits from fleet management and optimization

- Better routes – lower costs: shorter drive times, less fuel, better fuel price utilization
- Better routes – better utilization, increased net capacity
- Better routes – happier drivers, increased driver retention
- Increased planner productivity – lower costs, retention up
- Network-wide asset visibility for better deployment
- Readily available electronic information
- Better customer service via tracking and exception handling
- Better customer service via reliable time-window delivery
- Less errors and better productivity through reduction in manual data entry
- Operating performance benchmarking

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Thank You!

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